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ABSTRACT

A study examined the relationship between student behavioral problems and job satisfaction among vocational agriculture teachers. Data were collected in accordance with a three-block, temporally ordered causal model. The first part of the survey instrument sought data pertaining to teacher and school background variables, the second part consisted of Camp and Bourn's Student Misbehavior Survey, and the third part was based on the Brayfield-Rothe Index of Job Satisfaction. The study population was defined as all teachers of vocational agriculture teaching in the United States during the 1981-1982 school year and listed in the "Agriculture Teachers Directory" (N=12,726). A final systematic sample with a random start was used to select a final sample of 605 teachers. The standardized coefficients leading to job satisfaction--student behavior and its square--both had substantial direct effects on job satisfaction (-.510 and +.413 respectively). Thus, as the teacher's perceived level of student misbehavior increases, job satisfaction decreases. This decrease in job satisfaction occurs, however, at a decreasing rate. Although student misbehavior problems contribute to lowered job satisfaction, the effect of misbehavior tends to become marginally less pronounced as misbehavior problems continue to increase. Also found to be significant were the relationships between job satisfaction and coefficients for years of teaching experience and community type. (MN)

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STUDENT MISBEHAVIOR AND JOB SATISFACTION OF VOCATIONAL AGRICULTURE TEACHERS: A Path Analysis

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As Craig (1985) pointed out, there has been a chronic national shortage of teachers of vocational agriculture for at least twenty years. A number of studies have been conducted to determine reasons why agriculture teachers leave the profession.

Allen (1976) found that the average teacher of agriculture in Oregon leaves teaching after less than five years of service. Thus, it seems apparent that one reason for the continuing teacher shortage is the high turnover rate among teachers. Grady and Burnett (1985) reported that teacher dissatisfaction with one or more aspects of teaching also contributes to this high turnover rate. Moore and Camp (1979) found that one important category of reasons concerned problems of various kinds in dealing with students. Knight (1978) reported that problems with students ranked second in importance among five broad categories of reasons that former Ohio teachers of vocational agriculture gave for leaving teaching. All of these studies implied that general morale of the former teachers had influenced their departures from the profession and that part of that morale problem stemmed from problems in dealing effectively with students and student behavior.

In a classic study, Brayfield and Rothe (1951) discussed the impact and estimation of worker morale, and reported the development of their Index of Job

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Satisfaction. The instrument they reported has been used widely over the succeeding years. Snodgrass (1982) used the Brayfield-Rothe Index to study the job satisfaction of head state supervisors of agricultural education.

Bowen (1981) used the Index to study the job satisfaction of faculty members in university agricultural teacher education programs. He found no significant relationship between job satisfaction of the teacher educators and type of institution, age, teaching experience, years in present position, or years in teacher education.

Kotrlik, Woodley, and Sharp (1982) found that vocational teachers were generally more satisfied with their jobs than non-vocational teachers in the public schools of Louisiana. Of more direct interest in the current study, Grady (1985) surveyed Louisiana secondary teachers of agriculture to determine the relationships among job satisfaction, years of teaching experience, school setting (rural/non-rural), size of school, degree held by teacher, and years of teaching experience. He found a positive relationship between years of teaching and job satisfaction and a negative relationship between size of school and job satisfaction.

Claycomb and Petty (1983) asked teachers for their perceived needs for assistance in coping with beginning teaching. One of the areas mentioned was student behavioral problems. In a national study, Garrison and Camp (1984), on the other hand, indicated that student discipline was not a major problem for teachers of vocational agriculture. They did find regional differences as well as some situational differences (size of school, setting of school, sex of teacher, grade level taught, and years of teaching experience) among teachers in terms of their perceived levels of discipline problems.

PURPOSE

The purpose of this study was to determine whether there is a causal relationship between student behavioral problems and job satisfaction among

teachers of vocational agriculture. More specifically, two research questions were addressed:

1. What external (exogenous) variables affect both student misbehavior problems and job satisfaction among teachers of vocational agriculture?

2. What effect does student misbehavior have on job satisfaction among teachers of vocational agriculture, when those exogenous variables are controlled?

PROCEDURES

Statistical Procedure

Wright (1934) as reported in Pedhazur (1982) developed a statistical and theoretical method for establishing and estimating the strength of causality based on an examination of correlations among theoretically related variables, by means of the solution of simultaneous structural equations. Duncan (1969), as reported in Pedhazur (1982), applied the science of structural equations to the examination of causality in the social sciences. One variation of the procedures involved has become widely known as path analysis. This study used path analysis techniques based on multiple regression procedures (Kenny, 1979).

The Model

To correct for the effect of external causes (exogenous variables) in path analysis, it is necessary to specify both the causes and the order in which they occur. For the purposes of this study, a three block temporally ordered causal model was examined.

The first block consisted of exogenous variables that the literature suggests impact on student misbehavior and job satisfaction among teachers of vocational agriculture: years of teaching experience, sex of teacher, type of community, size of school, and highest degree held by the teacher. Sex of teacher was dummy coded, m=1, f=0. Years of teaching experience was collected as an interval variable. Size of school was collected in size categories

(<1000, 1000-1999, >1999), but was taken to have an underlying continuous distribution, and was treated as interval. Type of community was collected and coded on a scale of large city=1 to rural=4 and taken to be interval.

The second block consisted of the overall perceived level of student misbehavior, as measured by the Student Misbehavior Survey (SMS) developed by Camp and Bourne (1979). The SMS will be discussed in more detail under the Instrumentation section. Previous analysis of the data indicated that a strong second order curvilinear relationship exists between the student misbehavior variable and job satisfaction. Therefore the second block also contained the square of the SMS rating. The exogenous variables (block 1) were used in explaining the endogenous variables (block 2) as well as the criterion variable in block 3, job satisfaction, as measured by the Brayfield-Rothe Index.

The substantive question was the effect of student misbehavior (as measured by the SMS) on job satisfaction (as measured by the Brayfield-Rothe Index). Each of the variables was directly estimated with one indicator, producing a model with no latent variables to be estimated. The model was taken to be recursive, with either a correlation allowed or a causal path along all possible paths, see figure 1. Because the SMS score and its square are obviously correlated but hardly causal, a correlation was allowed in the model between those two endogenous variables. Thus the model is just-identified, making multiple regression the preferred method of path estimation. (Kenny, 1979)

Instrumentation

The instrument used in the study consisted of three parts. Part I collected the teacher and school background (exogenous) variables that would be used: years of experience in teaching, sex of teacher, size of school, setting of school (rural, suburban, small city, large city), and highest degree held by the teacher.

Part II consisted of the Student Misbehavior Survey (SMS), Camp and Bourn (1979). The instrument consists of a list of 101 student misbehaviors ranging from not paying attention to homicide (actual or attempted). Garrison (1982) reported a Cronbach's alpha coefficient of reliability of .975 for the SMS. Its validity as an estimate of overall level of teacher-perceived student misbehavior problem was established through a series of content, construct, and face validity examinations.

Part III, the Brayfield-Rothe Index of Job Satisfaction was used to collect a measure of the job satisfaction of the teachers sampled. The Index has a reported odd-even product-moment reliability coefficient, corrected by the Spearman-Brown formula, of .87 (Brayfield & Rothe, 1951). Its validity as a measure of job satisfaction was established by both content validation procedures and comparison to other measures of job satisfaction. In addition, the survival in the literature and continued use of the instrument for over thirty-five years attest to its usefulness and validity as a measure of job satisfaction.

Population and Sample

The population for the study was defined as all teachers of vocational agriculture teaching in the United States in the 1981-82 school year. It was further identified as the list of teachers in the Agriculture Teachers Directory (Smith, 1981), N=12,726. A systematic sample with a random start was used to select a sample of 605. The Krejcie and Morgan (1970) formula indicated that a sample size of 373 would be adequate for the study, based on a 5% error rate and a 95% confidence level. But, to allow for a factor analysis of the SMS, not reported here, and assuming a 65% response rate, the larger sample size was necessary to provide an adequate sample size.

Data Collection

A copy of the three-part questionnaire, along with a cover letter and a return envelope were mailed to each participant. Three weeks later a postcard reminder was sent, followed in another week by a second copy of the instrument, a different cover letter, and another return envelope. A total of 437 usable responses were collected, for an effective response rate of 72%. A subsequent telephone follow-up showed no systematic differences between respondents and non-respondents. The data were analyzed using the multiple regression procedures of the SAS statistical package. An alpha level for significance was set at $p<.05$.

RESULTS

Table 1 shows the correlation matrix, means, and standard deviations for the variables in the model. In addition to those statistics, for those variables being used as interval but for which categorical descriptive statistics would be more meaningful, frequencies are given in Table 2.

The reader will note that the typical vocational agriculture teacher in this national sample was a male, teaching in a relatively small, rural school, holding a baccalaureate as his highest degree, and having taught just over 12 years. The correlations are generally small and in the directions that one would expect.

Figure 1 presents the standardized (beta) path coefficients. The path coefficient from years of experience to job satisfaction is somewhat surprising. Grady (1985) found the opposite relationship and Bowen (1981) found no relationship. Yet, when the effects of the other variables are controlled, an increase in years of teaching experiences produces a significant decrease in job satisfaction. Additionally, a significant indirect effect was produced from years of experience through both student misbehavior terms to job satisfaction.

Table 1

Correlation matrix for demographic variables, Student Misbehavior Survey (SMS), and job satisfaction, n=437

	Job Sat	SMS Score	SMS^2	Years Exp	Teacher Sex	School Size	School Setting	Degree Held
Job Sat	1.0000							
SMS Score	-0.1001*	1.0000						
SMS^2	-0.0510	0.9418	1.0000					
Years Exp	-0.0764	-0.1800*	-0.1564*	1.0000				
Tea. Sex	0.0211	-0.0986*	-0.0625	0.1965*	1.0000			
Sch. Size	0.0244	0.0742	0.0745	0.0224	0.0005	1.0000		
Setting	0.0968*	0.0075	-0.0259	-0.0259	0.0051	-0.4141*	1.0000	
Degree	-0.0194	-0.0390	-0.0117	0.4236*	0.1041*	0.0324	0.0000	1.0000
Mean	32.22	80.48	NA	12.34	NA	NA	NA	NA
S. D.	3.42	43.77	NA	9.80	NA	NA	NA	NA

Note: * $p<.05$

Table 2

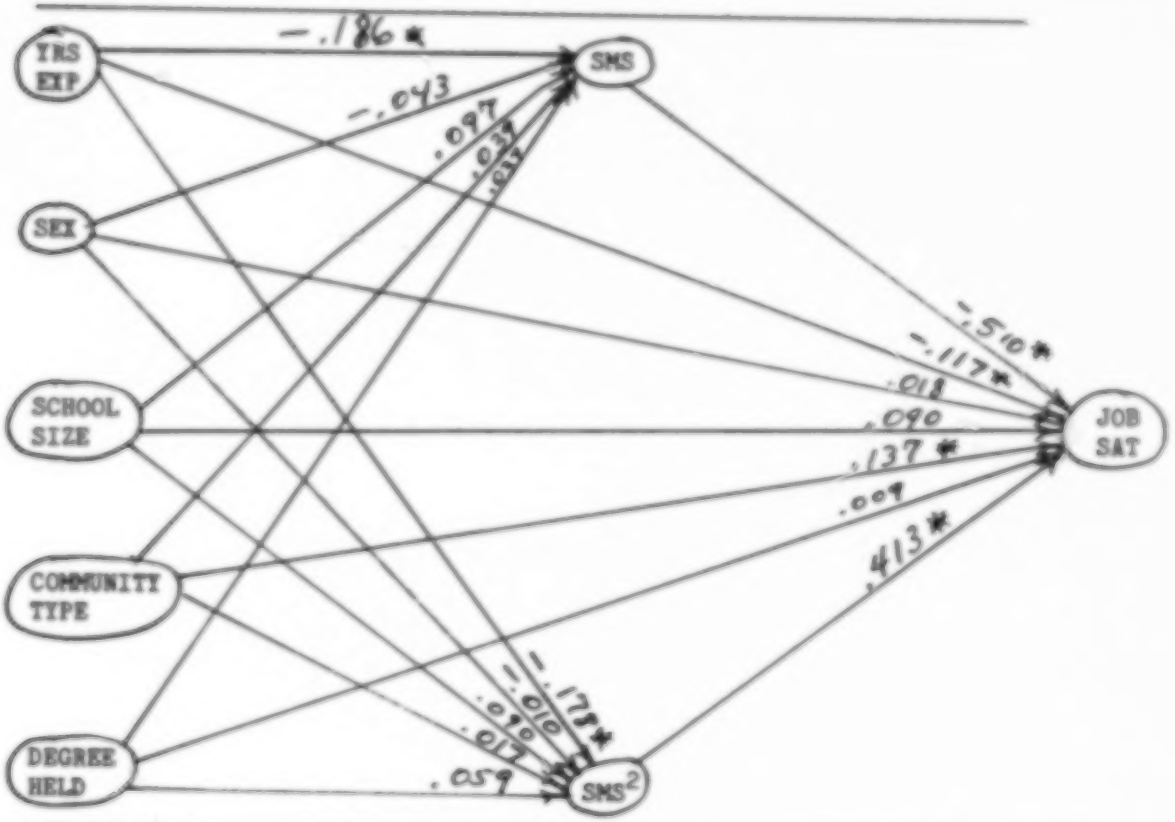
Frequencies for school size, school type, degree held, and sex of teacher

Sex	0= Female	25
	1= Male	412
Size of School	1= < 1000	298
	2= 1000-1999	112
	3= > 2000	26
School Setting	1= Central City	33
	2= Urban	102
	3= Urban Fringe	64
	4= Rural	234
Degree Held	1= Non-degree	11
	2= Bachelors	216
	3= Masters	128
	4= Post Masters	78
	5= Doctorate	3

Looking further at the standardized coefficients leading to job satisfaction, figure 1, student misbehavior (linear) and its square (curvilinear) both had substantial direct effects, -.510 and +.413, respectively. The interpretation of this result is that as the teacher's perceived level of student misbehavior increases, the teacher's job satisfaction decreases, but does so at a decreasing rate, i.e. with an upward curve. One could conclude that student misbehavior problems contribute to lowered job satisfaction, but that the effect tends to become marginally less pronounced as misbehavior problems continue to increase.

Figure 1

Standardized Path Analytic Estimation of Causal Relationships Among Selected Exogenous Variables, Perceived Level of Student Misbehavior, and Job Satisfaction Among Vocational Agriculture Teachers in the United States



* $p<.05$

N=437

R^2=0.055

Finally, the coefficients from years of experience and community type to job satisfaction are both significant, -.117 and +.137, respectively. The interpretation of the first statistic is that, ceteris paribus, increased teaching experience produces a decline in job satisfaction for teachers of vocational agriculture, a rather disturbing finding. The second statistic is interpreted to mean that teaching in a rural community produces higher job satisfaction than teaching in a city, for vocational agriculture teachers. Given the nature of the subject matter taught, that is not surprising.

DISCUSSION

An interesting finding was that increased years of teaching experience produced an actual decline in job satisfaction, when the other variables' effects were partialled out. That unexpected finding suggests a need for research into the question of teacher burn-out in secondary agricultural education along the lines of the study at the university level reported by Newcomb and Clark (1985). Research may be needed to answer questions in several areas. Why does additional experience in teaching lead to a decline in job satisfaction among agriculture teachers? How severe is the problem? What can be done to correct the situation?

On the substantive question of the study, logic would indicate, and the literature would support the idea that a teacher's job satisfaction would suffer from increased student misbehavior problems. While, this study found that to be true, but with extremely small effects. The existence of a strong curvilinear relationship from student misbehavior to job satisfaction (i.e. decreasing at a decreasing rate) is interesting in itself. But because the percent of variance explained in job satisfaction by this model is so low (R^2=.055), we must conclude that the effect of student misbehavior on job satisfaction is much less than the literature would indicate, and in fact is only negligible, when other factors are taken into account.

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